JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
(Established by Govt. of A.P., ACT No.30 of 2008)
ANANTHAPURAMU – 515 002 (A.P) INDIA
MASTER OF BUSINESS ADMINISTRATION
MBA; MBA (General Management); MBA (Business Management)
COMMON COURSE STRUCTURE

Course Code	Specialization Elective - V	L	T	P	C
21E00401d	**Data Communication And Network Analysis**	4	0	0	4
	Semester		IV		

Course Objectives:

- To Impart knowledge on concepts of Data Communication and Network Analysis, network security, privacy and data encryption.
- To introduce concepts of Network, general structure of Networks , types of analysis , layers, digital transmission.
- To explain and analyze different layers in Network focusing on Transportation layer, Session layer, presentation layer and application layers in data communication and network.

Course Outcomes (CO): Student will be able to

- Understand concepts of Data Communication and Network Analysis, network security, privacy and data encryption.
- Gain knowledge on general structure of Networks , types of analysis , layers, digital transmission.
- To explain and analyses different layers in Network focusing on Transportation layer, Session layer, presentation layer and application layers.

UNIT – I		Lecture Hrs: 8

Introduction – General structure of Networks – ISO, OSI Reference Model. Hierarchical Network, connectivity analysis – delay analysis – local access Network design. Physical layer: transmission and multiplexing – digital transmission – circuit switching packet switching – terminal handling – error correction and error correcting codes.

UNIT – II		Lecture Hrs: 12

Data – link layer: simple protocols. Unrestricted stop and wait sliding window protocols. Network layer: virtual circuits and data grams, centralize hierarchical and broadcasting algorithms.

UNIT - III		Lecture Hrs:12

Transportation layer and Session layer: transport service – addressing and connection establishment – flow control and buffering – synchronization – crash recovery gate way– internet work fragmentation – session layer.

UNIT – IV		Lecture Hrs:12

Presentation layer: network security and privacy – data encryption – key distribution authentication and digital signatures – virtual terminal protocols – file transfer protocols.

UNIT – V		Lecture Hrs:12

Application layer – distribution systems ISDN – Service & History, TCP/IP and Net Working and Internet working Derives.

Textbooks:

1. Understanding Data Communications & Networks, William A. Shay, Vikas
2. Data Communications and Net Working, Behrouz A. Forouzan, TMH

Reference Books:

- Data Communication and Computer Networks, Duck& Read, Person.
- Data Networks, Bertsekas & Gallages, PHI
- Computer Communications and Networking Technologies, Michael A. Gallo, Cengage

Online Learning Resources:

https://swayam.gov.in/DataCommunicationandNetwork
https://www.tutorialspoint.com/data_communication
https://onlinecourses.nptel.ac.in/DataCommunication